4. Zero the 850X DMM that is connected to the A55 Thermal Sensor output.

5. At each frequency mentioned below, first adjust the 5700A output until the 850X DMM connected to the A55 Thermal Sensor reads 0 volts, then record the reading of the DMM connected to the RMS Wideband Voltmeter.

   Frequency: 12 kHz, 100 kHz, 500 kHz, 1.1999 MHz, 1.2 MHz,
   DMM Reading: _____/_____/_____/_____/_____

   Frequency: 2 MHz, 10 MHz, 20 MHz, 30 MHz.
   DMM Reading: _____/_____/_____/_____

6. Remove the A55 Thermal Sensor and the 850X DMM from the setup.

7. Call up the 5700A Wideband Flatness Calibration routine on the 5700A front panel by pressing the softkey sequence "Setup Menus", "Cal", "Calibration", "Wideband Flat".

8. Enter the present ambient air temperature as prompted, and press ENTER.

9. Wideband Flatness Calibration starts with a 3V output at 1 kHz. Using the 5700A edit knob, adjust the output until the DMM connected to the RMS Wideband Voltmeter output reads exactly 1V; then press ENTER.

10. The Wideband output frequency changes to 12 kHz. Use the 5700A output adjust knob to adjust the output until the DMM reads the voltage that was recorded for 12 kHz in step 5. Press ENTER.

    Repeat this step for each frequency through 30 MHz, adjusting the output each time to match the value recorded in step 5.

11. The 5700A Wideband output changes to 1V at 1 kHz. Remove the 10 dB attenuator from the test setup, leaving a total attenuation of 60 dB. Use the 5700A output adjust knob to adjust the output until the DMM reads the voltage that was recorded for 1 kHz in step 5. Press ENTER.

    Repeat this step for each frequency through 30 MHz, adjusting the output each time to match the value recorded in step 5.

12. The 5700A Wideband output changes to 300 mV at 1 kHz. Remove a 20 dB attenuator, and replace the 10 dB attenuator on the test set up for a total attenuation of 50 dB. Use the 5700A output adjust knob to adjust the output until the DMM reads the voltage that was recorded for 1 kHz in step 5. Press ENTER.

    Repeat this step for each frequency through 30 MHz, adjusting the output each time to match the value recorded in step 5.

13. The 5700A Wideband output changes to 100 mV at 1 kHz. Remove the 10 dB attenuator on the test setup for a total attenuation of 40 dB. Use the 5700A output adjust knob to adjust the output until the DMM reads the voltage that was recorded for 1 kHz in step 5. Press ENTER.

    Repeat this step for each frequency, adjusting the output each time to match the value recorded in step 5. This time, only 1 kHz, 10 MHz, 20 MHz, and 30 MHz points are adjusted.

14. The 5700A Wideband output changes to 30 mV at 1 kHz. Remove another 20 dB attenuator from the test setup for a total attenuation of 30 dB. Use the 5700A output adjust knob to adjust the output until the DMM reads the voltage that was recorded for 1 kHz in step 5.

    Repeat this step for each frequency through 30 MHz, adjusting the output each time to match the value recorded in step 5.

15. The 5700A Wideband output changes to 10 mV at 1 kHz. Remove the 10 dB attenuator from the test setup for a total attenuation of 20 dB. Use the 5700A output adjust knob to adjust the output until the DMM reads the voltage that was recorded for 1 kHz in step 5.

    Repeat this step for each frequency, adjusting the output each time to match the value recorded in step 5. This time, only 1 kHz, 10 MHz, 20 MHz, and 30 MHz points are adjusted.

16. Make sure the CALIBRATION switch is in the ENABLE position, and store the values by pressing a softkey to conclude the Wideband Flatness Calibration procedure.

3-24. WIDEBAND FREQUENCY ACCURACY TEST

Proceed as follows to test the Wideband module frequency accuracy:

1. Connect the frequency counter to the 5700A wideband output and measure the 5700A output frequency at the frequencies listed in Table 3-18. Verify that the frequency counter indicates within the 0.01% limits shown.